بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

This is video presentation of book titled

"The Sun and the Stars are Set in Motion

New Model of Solar System

Legitimate Refutation of Heliocentric Model"

By

Professor Abdul Razzaq

available at

https://www.amazon.com/SUN-STARS-ARE-SET-MOTION/dp/1694561348/ref=tmm_pap_swatch_0?_encoding=UTF8&qid=1632908839&sr=1-1

PART – 1

MATHEMATICAL

ASSESSMENT OF HELIOCENTRIC MODEL

CHAPTER – 5

Revolution of the moon and earth’s orbital revolution

Question No. 11, 12 & 13 addressed in this part of presentation

Moon and earth's orbital revolution

The moon revolves anticlockwise around the earth that itself orbits the sun

Moon is under the influence of:

1- Gravity from the earth

How does the moon orbit the earth that itself orbits the sun?

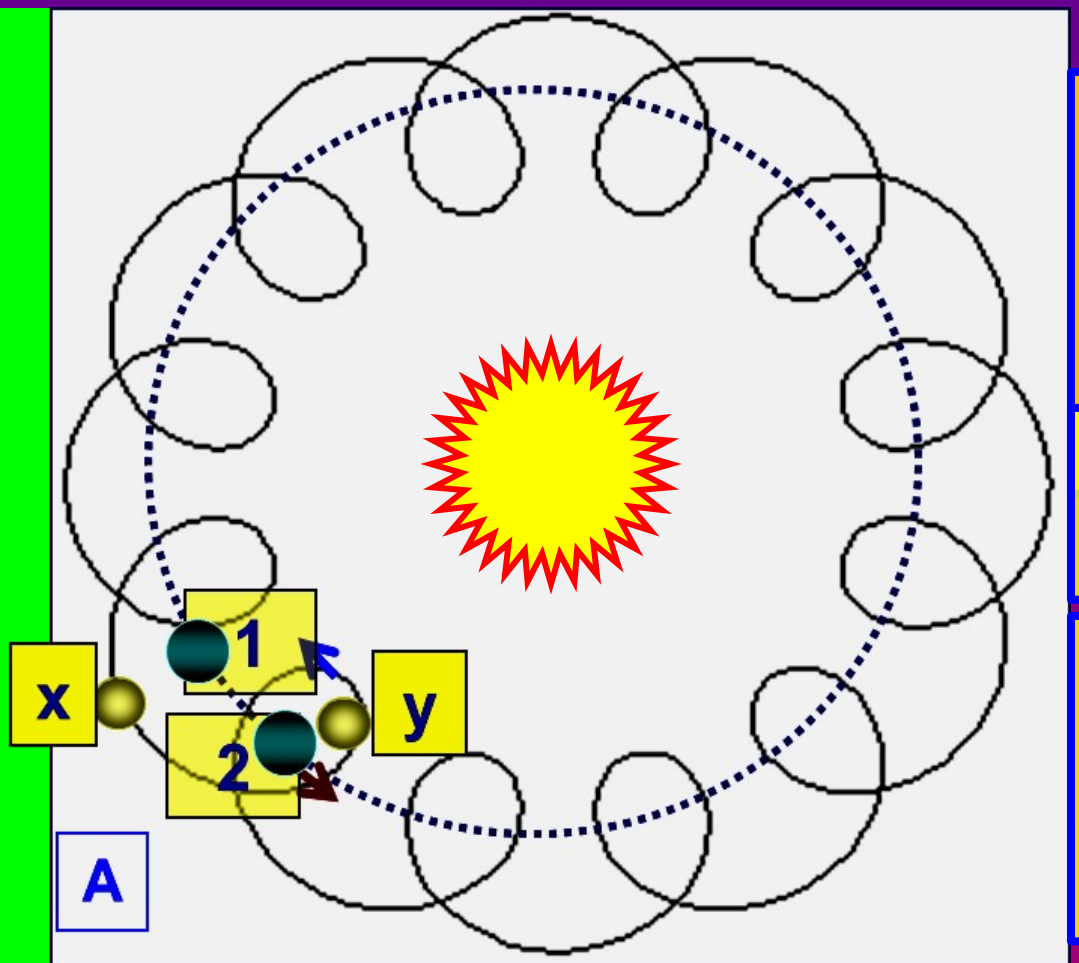
Three different concepts have been proposed to perceive the motion of the moon around the earth that orbits the sun

1 – Double planet system

"The earth and the moon move together as a pair and behave as independent planets revolving in the elliptical orbits around the sun i.e. the earth and moon make a binary/double planet system (Akulenko et al., 2005; Bloomfield, 2008).

Earth and moon are held together by mutual gravitational force (Anonymous, 1992; Reddy, 2001) that is responsible for orbital revolution of the moon around the earth and keeping the moon linked with the earth throughout their motion around the sun.

The orbit of the moon will have **loops or zigzag shape** (www.math.nus.edu.sg/aslaksen/; Lowrie, 2007) .



a- Looped motion of the Moon

Earth at position “1” in the orbit and the moon is at position “x” in its looped path

The earth and the moon will be moving in the same direction

Earth at position “2”, the moon at “y” will be moving in opposite directions

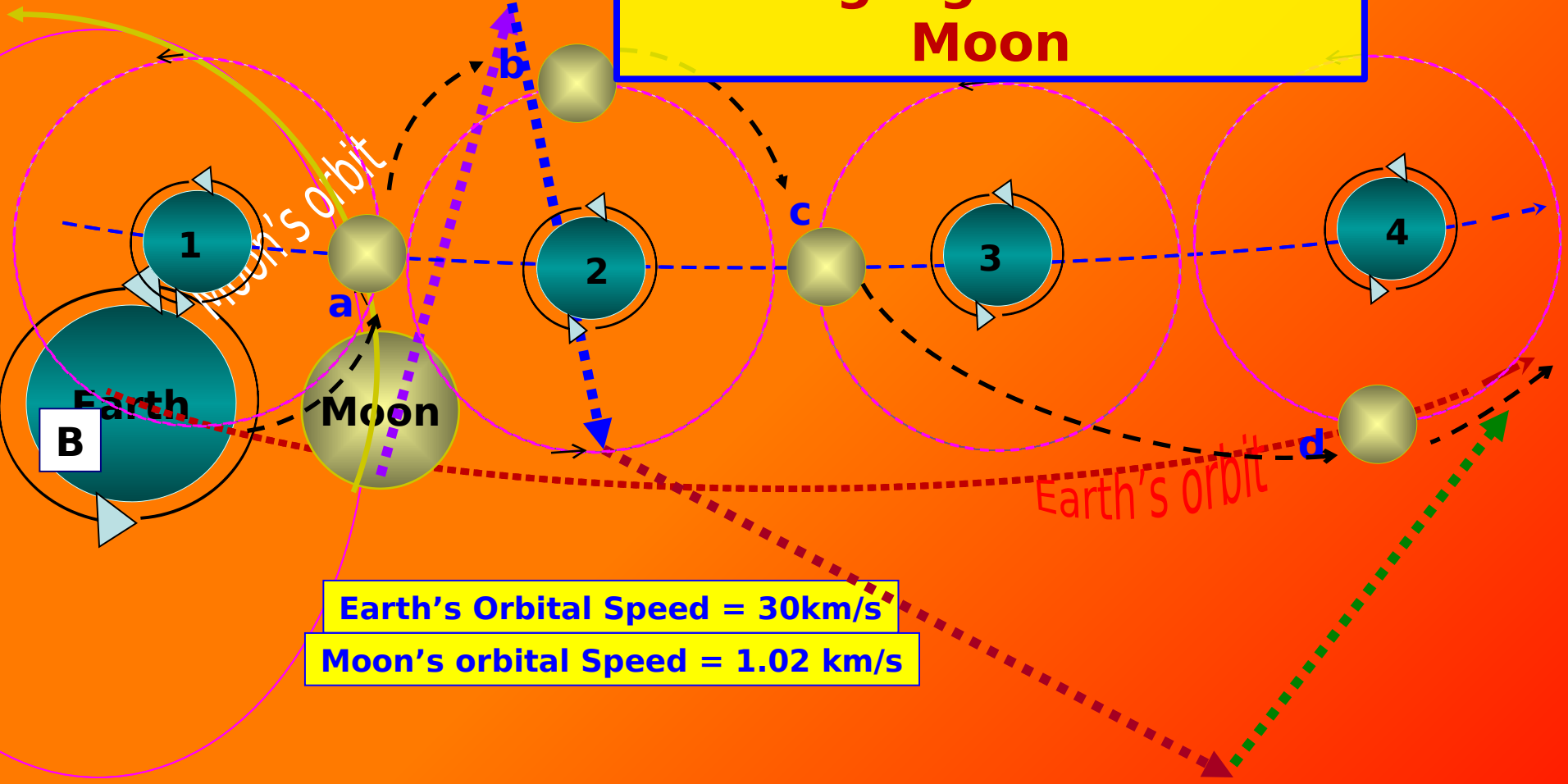
Earth needs to stand still till the moon completes its motion in the loop or moon should have orbital speed significantly greater than that of the earth for this kind of looped motion

How the moon moving with speed of 1.023 km/s will remain linked with the earth that moves with a speed of 30 km/s in the orbit?

There is no scientific explanation of this concept

Concept of looped shaped orbit of the moon is not logical and

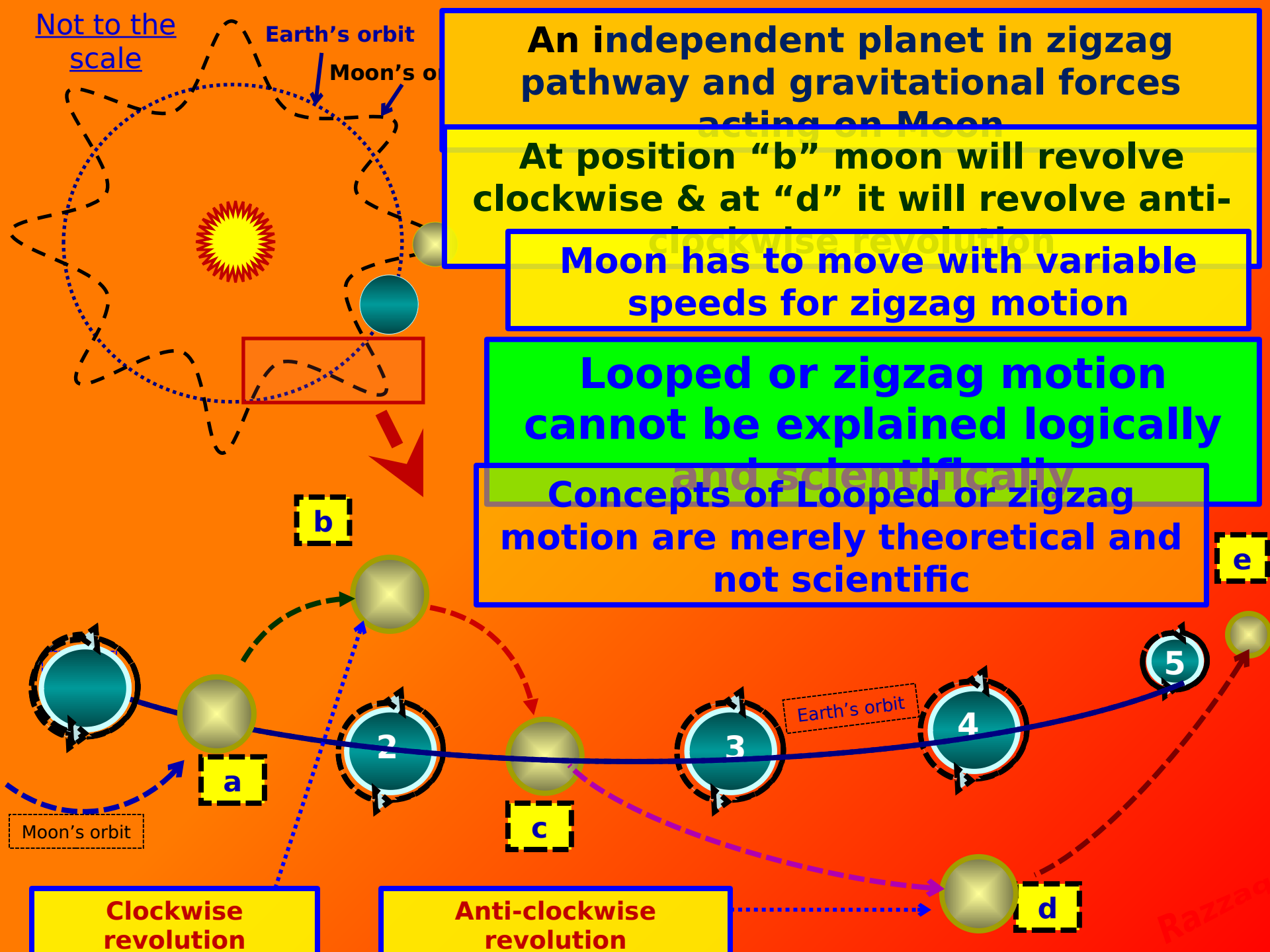
b- Zigzag motion of Moon

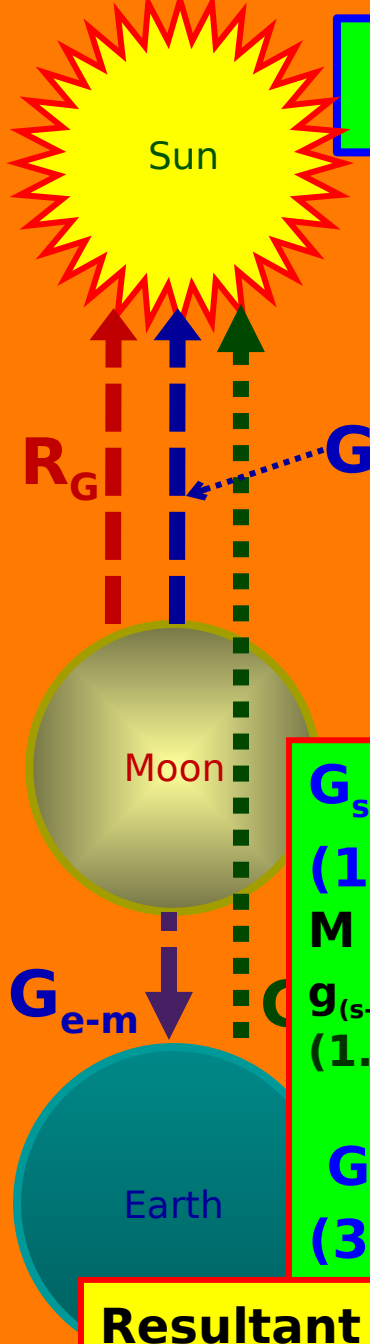


Earth's Orbital Speed = 30km/s

Moon's orbital Speed = 1.02 km/s

Moon should have variable speed greater than that of earth for zigzag fashion of motion


Not to the scale
Earth's orbit
Moon's o
An independent planet in zigzag pathway and gravitational forces acting on Moon
At position "b" moon will revolve clockwise & at "d" it will revolve anti-clockwise revolution
Moon has to move with variable speeds for zigzag motion
Looped or zigzag motion cannot be explained logically and scientifically
Concepts of Looped or zigzag motion are merely theoretical and not scientific
b
e
a
2
c
3
Earth's orbit
4
5
Moon's orbit
Clockwise revolution
Anti-clockwise revolution
d



Gravitational Force (G) acting on Moon at different

A - Moon between the Sun and the

$G_{sun\text{-}earth} = [(G.\ M_{earth}.\ M_{sun}) \div (R_{sun\text{-}earth})^2]$

$= [(6.67x10^{-11} \times 6.0x10^{24} \times 2.0x10^{30}) \div (1.50x10^{8}$

Moon will experience

Net Force of $\underline{2.273x10^{20}}$ N towards the sun

Moon still remains linked with the earth.

How is this possible?

Scientifically cannot be explained!

$G_{sun\text{-}moon}$

$(1.$

$M_{moon} =$

$g_{(s-m)} = G.\ M_{sun} \div (R_{sun\text{-}moon})^2 = [(6.67x10^{-11} \times 2.0x10^{30}) \div (1.496x10^{8}x10^{3})^2]$

$= \underline{5.96x10^{-3}\ m.s^{-2}}$

$G_{e-m} = [(6.67x10^{-11} \times 7.0x10^{22} \times 6.0x10^{24}) \div (3.84x10^{5}x10^{3})^2]$

Resultant Force on Moon (R) = $4.172x10^{20}$ - $1.899x10^{20}$ = $\underline{2.273x10^{20}\ N}$

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Gravitational Force (G) acting on Moon at different

B - The Sun and the Earth are at right angle relative to the Moon

G_{sm} (Gravitational Force of sun on moon) = 3.56×10^{22} N

G_{em} (Gravitational Force of earth on moon) = 1.899×10^{20} N

R_G (resultant force) = 1.1259×10^{22} N

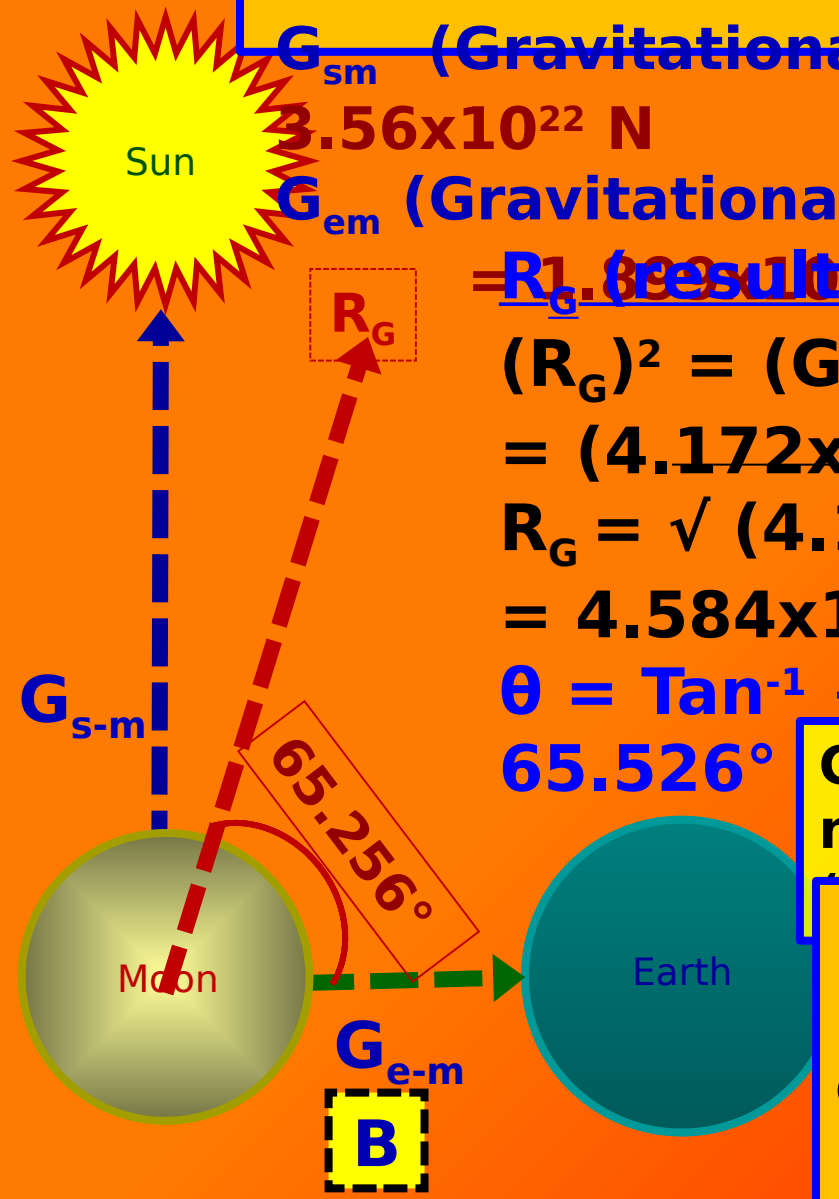
$(R_G)^2 = (G_{s-m})^2 + (G_{e-m})^2$

$= (4.172 \times 10^{20})^2 + (1.899 \times 10^{20})^2$

$R_G = \sqrt{(4.172 \times 10^{20})^2 + (1.899 \times 10^{20})^2}$

$= 4.584 \times 10^{20}$ N

$\theta = \text{Tan}^{-1} \{3.56 \times 10^{22} \div 1.899 \times 10^{22}\} = 65.526°$



Consequently the moon must be moving in the direction of arrow "B"

If the moon, an independent planet, still revolves around earth then the moon must not be under gravitational pull from the sun

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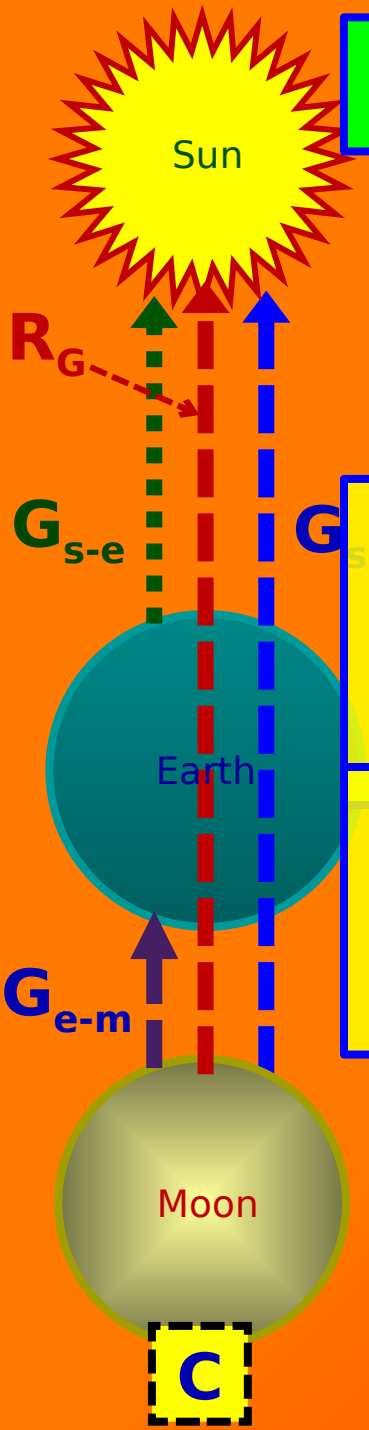
Gravitational Force (G) acting on Moon at different

C - The Sun and the Moon are on opposite side of the Earth



Therefore, concept of Double Planet System is not

The moon revolves around the earth but its revolution cannot be elucidated logically and mathematically if the earth also orbits the sun

Consequently, notion of orbital motion of the earth is not convincing

The moon must bump into the earth

2 - Gravitationally bound earth-moon system

- The moon does not simply revolve around the earth. Instead, gravitationally bound single independent system, “the earth-moon system”, rotates around a common center of gravity called barycenter.
- The barycenter remains stationary with respect to the earth-moon system and lies about 1700 km below the earth’s surface.
- It is the barycenter that moves in an elliptical orbit around the sun rather than the center of mass of the earth alone. The sun acts on the earth and its moon as one entity with its center at the barycenter.

(Enc. Britannica, 2008; Hubbard, 2000; Barbeiri, 2007; Montenbruck et al., 2000; Tumalski, 2004)

Rotation of “earth-moon system” around a common center of gravity (barycenter)

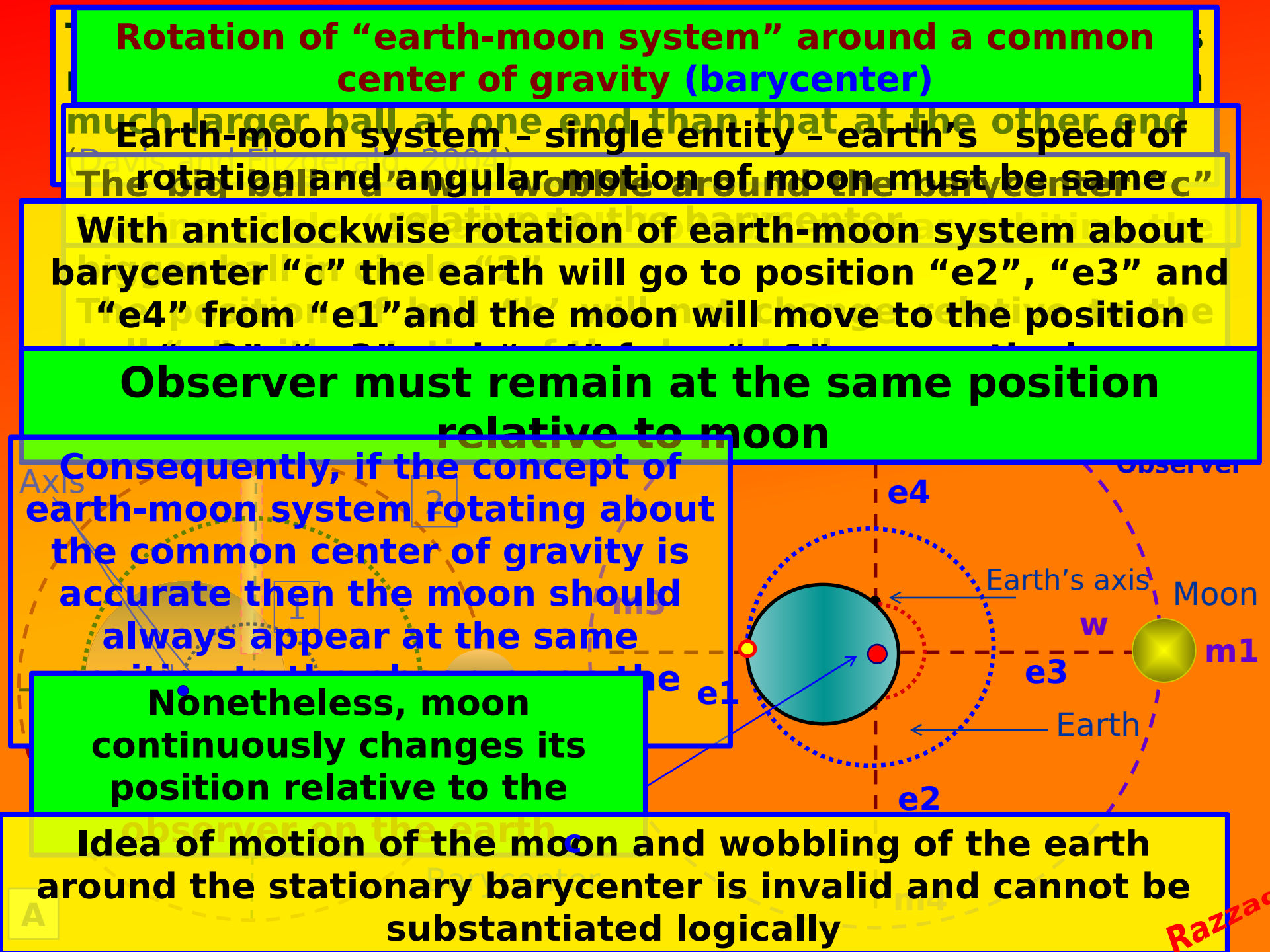
Earth-moon system – single entity – earth’s speed of rotation and angular motion of moon must be same

With anticlockwise rotation of earth-moon system about barycenter “c” the earth will go to position “e2”, “e3” and “e4” from “e1”and the moon will move to the position

Observer must remain at the same position relative to moon

Consequently, if the concept of earth-moon system rotating about the common center of gravity is accurate then the moon should always appear at the same

Nonetheless, moon continuously changes its position relative to the

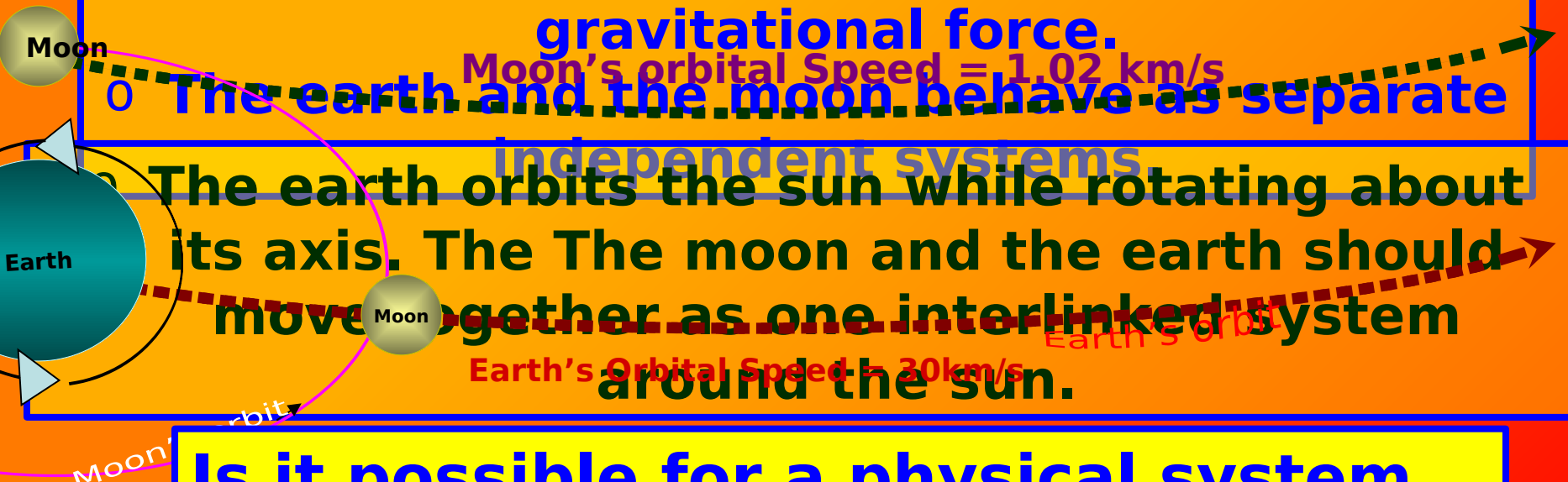


Idea of motion of the moon and wobbling of the earth around the stationary barycenter is invalid and cannot be substantiated logically

3 - Simultaneously independent and interlinked Earth-Moon system

First assumption: The earth and the moon are independent planets (Akulenko et al., 2005; Bloomfield, 2001).
Second assumption: The earth and the moon are held together by mutual gravitational force (Reddy, 2001).

- **The moon while rotating about its axis orbits the earth under the influence of gravitational force.**
- **The earth and the moon behave as separate independent systems.**

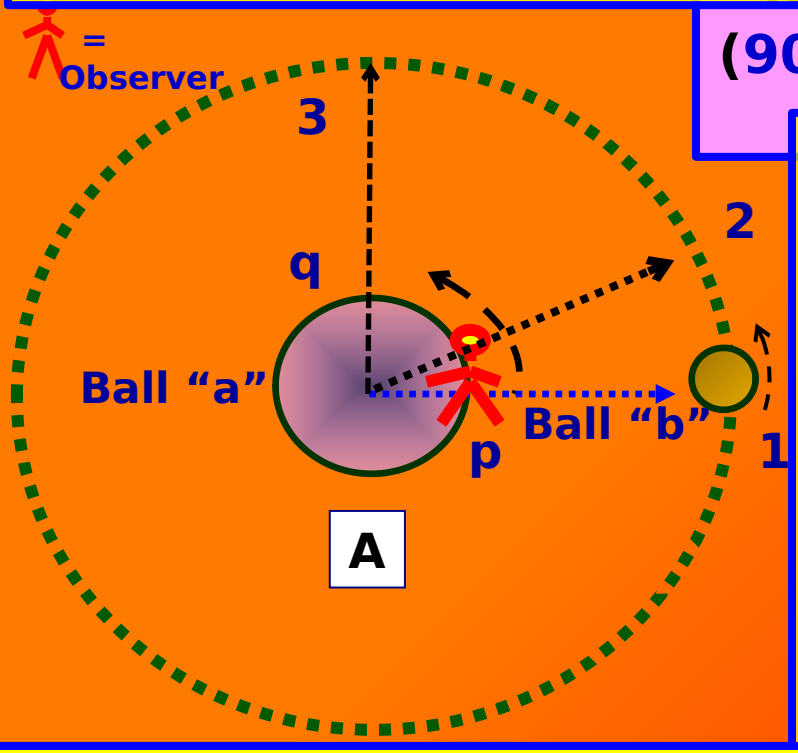


- **The earth orbits the sun while rotating about its axis. The The moon and the earth should move together as one interlinked system around the sun.**

Is it possible for a physical system of two bodies to have this kind of dual nature?

A – Independent system of two

Consider a big ball “a” in the center of a circular ring and a small ball “b” attached to the ring (systems is independent)
Suppose the ball “a” is rotating anticlockwise and the ball “b” is sliding on the ring (revolving around the ball “a”) in anticlockwise direction



Rotation speed of ball “a” is more (90⁰/hr) than sliding speed of ball “b” (18⁰/hr)

- **Observer goes to position “q” from “p” and ball “b” goes to position 2 from “1” after one hour.**
- **Clockwise receding motion of ball is noticed by the observer**
- **Ball “b” comes in line with observer at “3” after 5 hours**
- **Every next alignment point will shift anticlockwise**

This system of two balls is very similar to revolution of the moon around the earth rotating about its axis

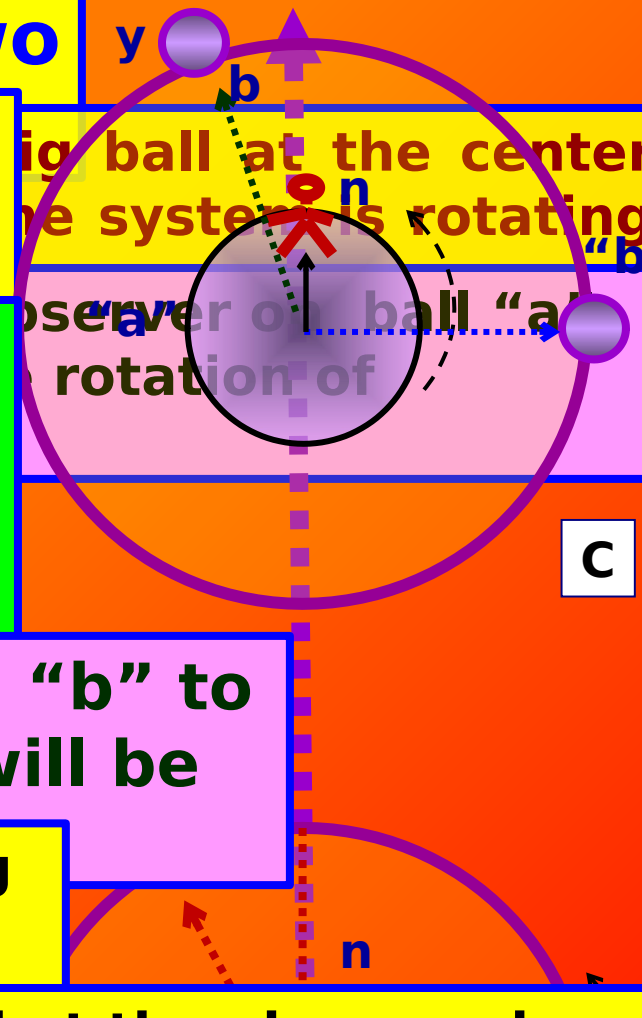
B – Interlinked system of two

Suppose the ball “b” is also sliding anticlockwise on the ring with angular speed of 15°/hour within this

Position of ball “b” relative to the observer on ball “a” will change
Observer will notice that ball “b” is moving anticlockwise or observer will be receding relative to ball “b”

The apparent motion of the ball “b” to the observer in the system will be

The interlinked system is also moving forward, the observer will recede



A person outside the system will see that the observer has rotated 90° within the system from “m” to “n” whereas the ball “b” has rotated 105° (90° + 15°) from its initial position relative to the center of the system and will be at position “y” on the ring as the system moves forward from position “1” to “2” in one hour. The apparent motion of the ball “b” to the observer in the system will be anticlockwise

Moon appears to move clockwise due to rotation of earth

to the observer on the earth

Point at which the observer on the earth and the moon align again shifts anticlockwise every next day

Moon appears to move clockwise due to rotation of earth

Earth and Moon must be two independent systems

This will justify the apparent clockwise motion and anticlockwise orbital revolution of the moon

Earth and the moon should behave as independent systems for orbital revolution of the moon around the earth, and interlinked single unit to validate motion of the moon accompanied with earth

This kind of dual nature of a physical system of two objects is not possible scientifically

Orbital revolution of the moon around the earth cannot be justified if the earth is assumed orbiting the sun

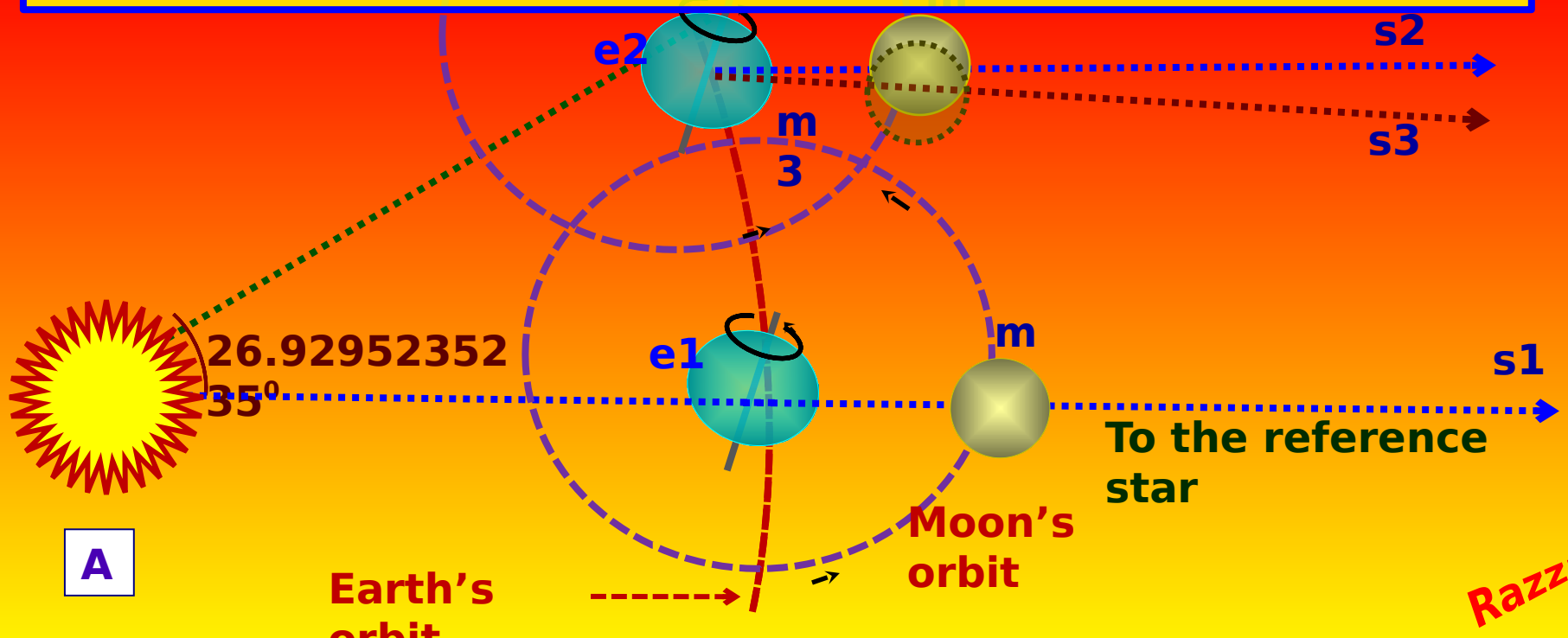
Notion of orbital motion of the earth scientifically unsubstantiated becomes questionable

Sidereal month and earth's

Logically & mathematically the reference star should be in the direction of arrow "s3"

So Assumption is made:

As the stars are far away therefore the earth and the moon on the arrow "s2" parallel to "s1" will be at same position relative to the reference star



Mathematical Evaluation of the

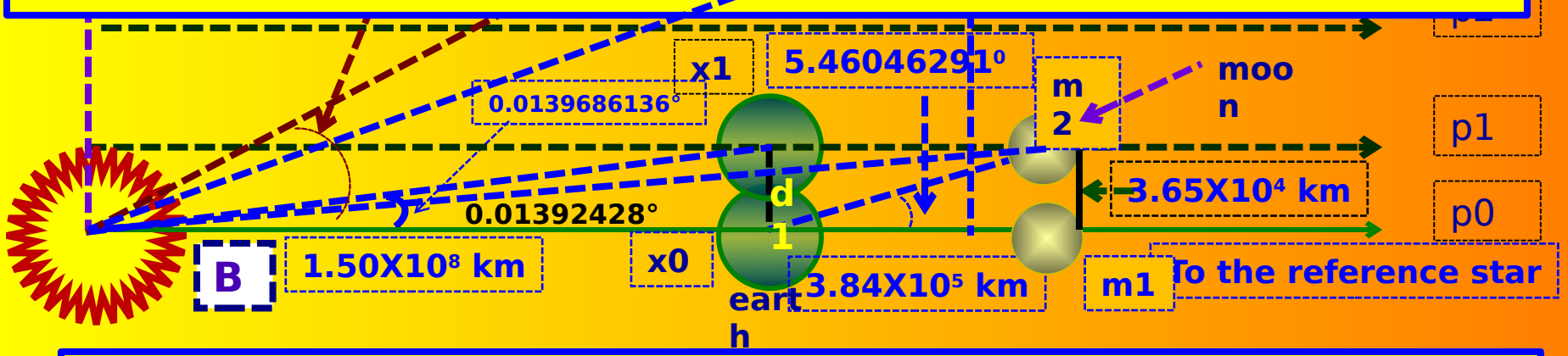
Not to the scale

Moon will be at same position relative to the reference star

Absolutely Impossible

Assumption is not Valid Mathematically & Logically

the center of the sun it will not be at same position relative to the reference star



The moon will go to position “m3” on “p3”after sidereal month with 26.8406° angular displacement relative to the sun and perpendicular distance (d3) of 6.79x10⁷ km from “p0”

The earth will be at position “x2”

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Artificial satellite and earth's orbital revolution

Artificial satellites are put in the orbit at a certain altitude with a specific horizontal speed so that the force of gravity makes them to revolve around the earth with

Altitude (R) and orbital speed (V) have to be decided so that the satellite can orbit the earth with desired period (T) (Cutnell and Johnson, 2013; Moore, 2014) using the formula:

$$\text{Orbital speed (V)} = \sqrt{(G \bullet M_{Central}) / R}$$

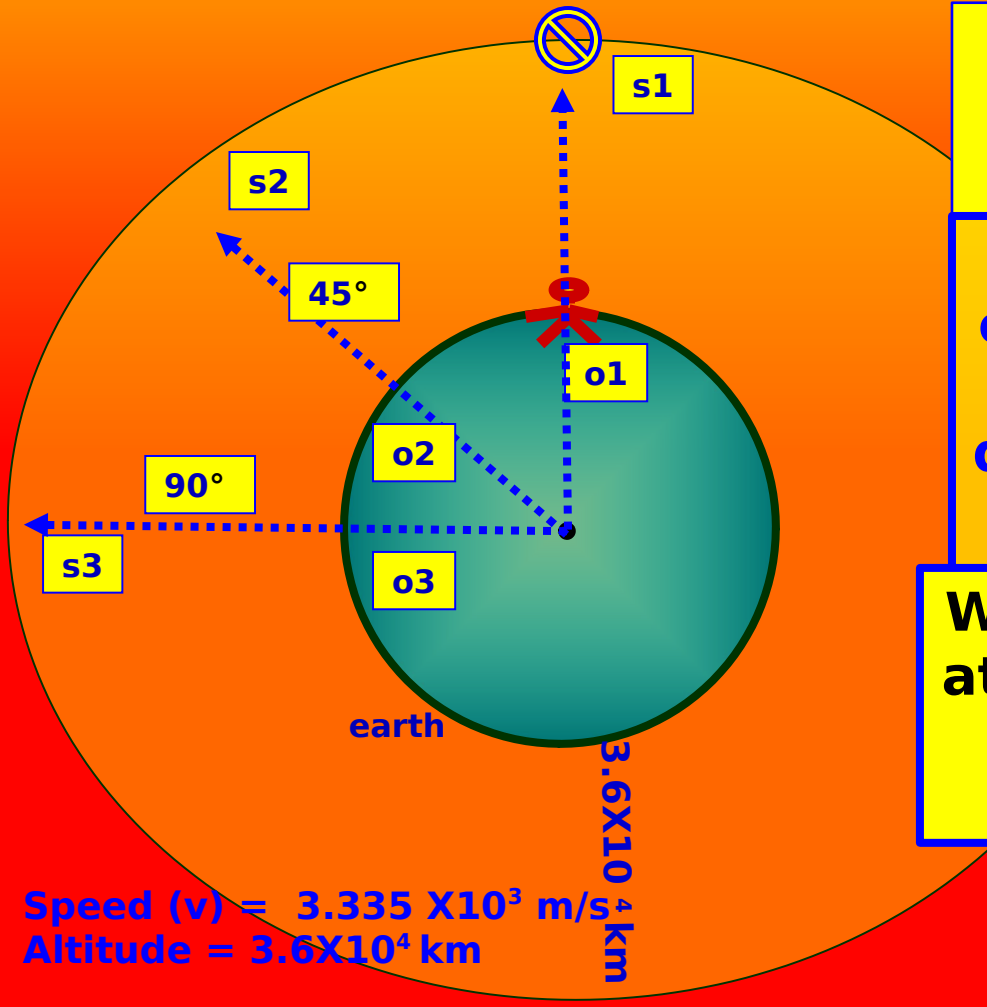
Revolution speed of earth in the orbit is not given any consideration as if the earth does not orbit the sun

Geosynchronous satellite: A satellite that orbits the earth with orbital period equal to earth's period of rotation

Altitude (R) = $3.6X10^4$ km,

Speed (v) = $3.335\ X10^3$ m/s

Period (T) = 86164.09053083288 sec



GSS in the orbit at "s1" and observer at "o1" are in line with the center of the earth

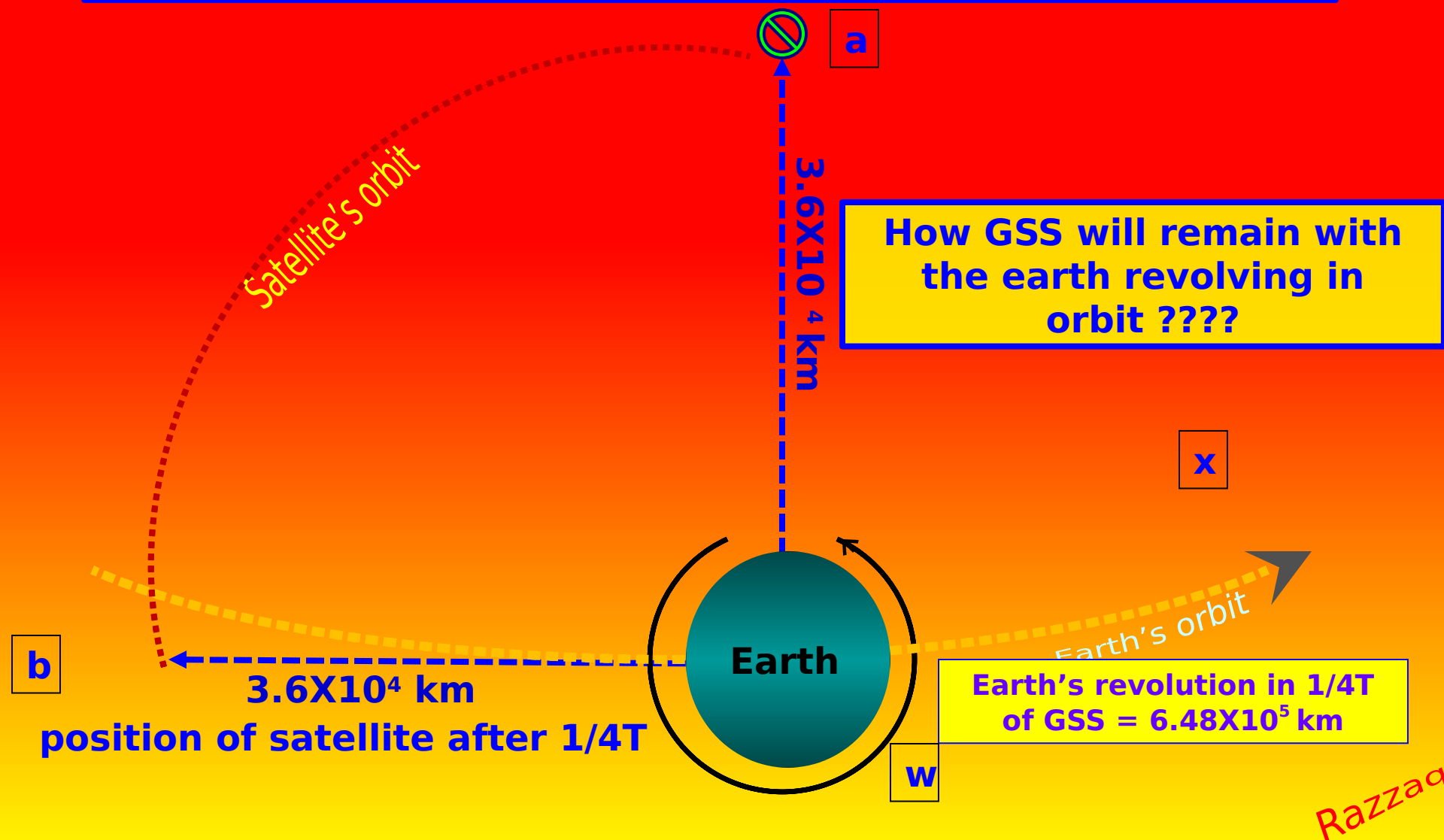
Revolution period of GSS is equivalent to rotation period of the earth, so the angular displacement of the observer and GSS relative to the

With 45° & 90° revolution GSS at "s2" & "s3" will be at same position to the observer at "o2" & "o3"

Geosynchronous Satellite

GSS with earth revolving in

GSS at position “a” in the orbit and the earth at position “w” in the orbit: Earth and GSS moving in opposite direction



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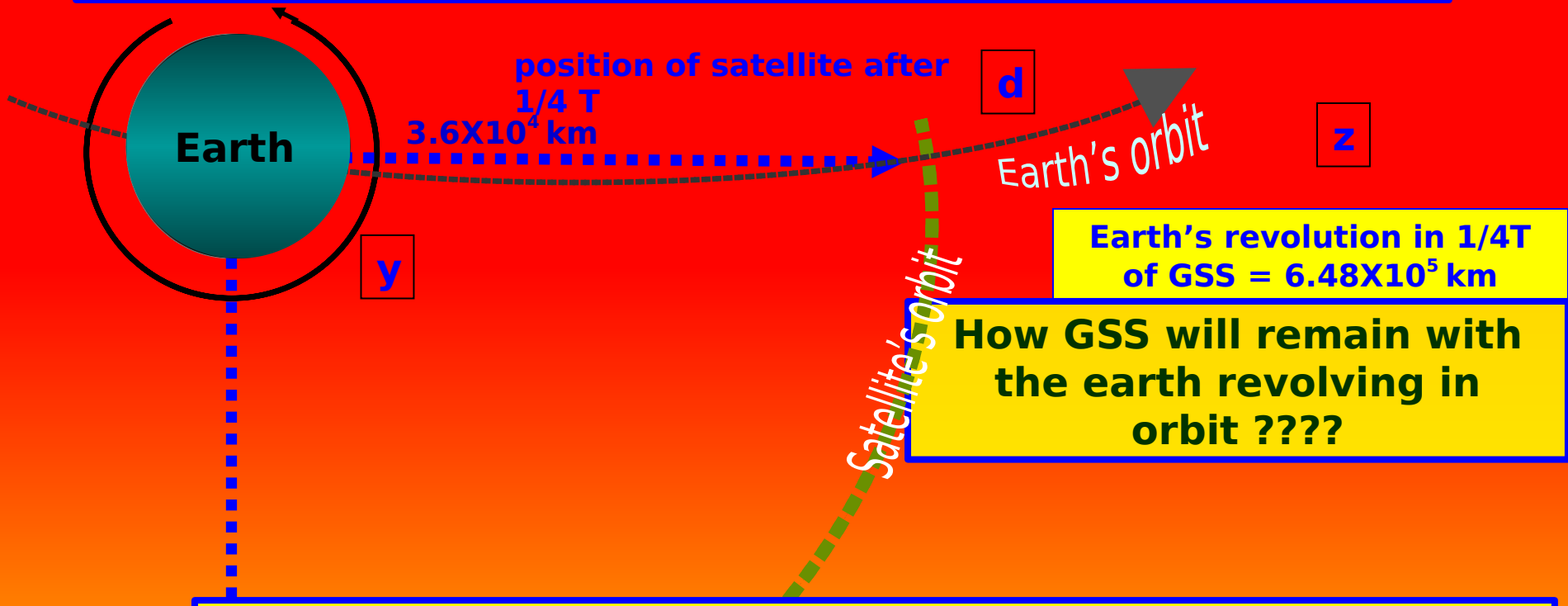
GSS with earth revolving in

GSS at position “c” in the orbit and the earth at position “y” in the orbit: Revolution of Earth and GSS in 1/4T of GSS



Earth’s revolution in 1/4T of GSS = 6.48×10^5 km

How GSS will remain with the earth revolving in orbit ????

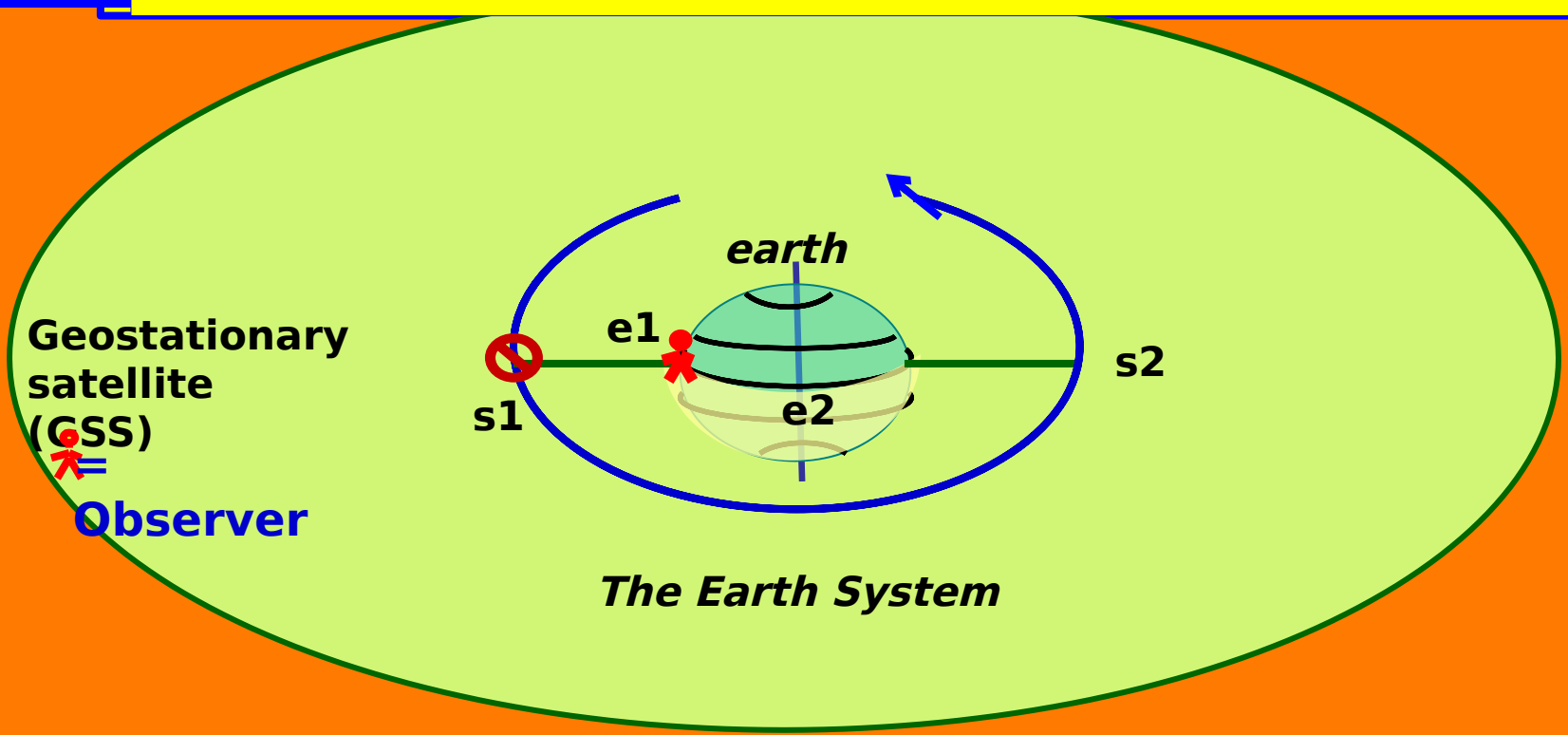
If GSS is still at the same position and same altitude from earth orbiting the sun then there will be no doubt to believe that GSS and the earth are moving together as a single interlinked system (the earth system)

GSS revolving with speed equivalent to rotation of the earth looks stationary to the observer on the earth.

The earth and the satellite must be separate independent systems and not a single interlinked system.

If not a part of the earth system, how does the GSS

Idea of orbital revolution of the earth becomes uncertain



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CONCLUSION

Orbital revolution of the moon cannot be justified if the earth is supposed orbiting the sun

Sidereal month cannot be substantiated logically and mathematically if the earth revolves in the orbit

Revolution of artificial satellites around the earth rotating about its axis can be well explained and rationalized according to the principles of gravitation only if the earth does not revolve in the orbit

Consequently, revolution of the earth around the sun is without any scientific validity and becomes suspicious

GOOD LUCK
ALLAH BLESS YOU ALL

Please send your questions or any query at

arazzaq57@yahoo.co.in

or whattsapp: +923215623307